

Eleocharis atropurpurea (Retz.) J. & K. Presl

purple spike-rush

Cyperaceae (Sedge Family)

Status: State Possibly Extirpated

Rank: G4G5SX

General Description: Adapted from Hitchcock et al. (1969) and FNA eds. (2002): *Eleocharis atropurpurea* is a small, tufted annual with slender hollow stems, up to 4 in. (10 cm) tall. The leaves are all basal and reduced to mere sheaths or scarcely sheathing scales. The spikelets are 1/16 to 1/2 in. (2-8 mm) long, oblong-ovoid, taper to a point at the apex, and are many-flowered, with small, closely overlapping scales. The scales are 1/16 in. (1-1.5 mm) long, with a broad green or straw-colored midstripe and mostly brown or purplish sides. The whitish perianth bristles are scarcely barbed, and mostly shorter than the achene or obsolete. The minute anthers are less than 1/16 in. (< 0.5 mm) long. There are 2 stigmas. The achene is lens shaped and convex on both halves, shining black to dark cherry red, and less than 1/16 in. (0.5-0.6 mm) long, including the minute swelling at the base.

Identification Tips: Within Washington, *Eleocharis atropurpurea* may be confused with *E. ovata* and *E. palustris*. Both *E. atropurpurea* and *E. ovata* are annuals, while *E. palustris* is a rhizomatous perennial. *E. atropurpurea* is up to 4 in. (10 cm) tall, with spikelet scales that are 1/16 in. (1-1.5 mm) long, and achenes that are less than 1/16 in. (0.5-0.6 mm) long, whereas *E. ovata* is 2 to 20 in. (5-50 cm) tall, with spikelet scales that are up to 2.5 mm long, and achenes that are 1/16 in. (1-1.5 mm) long.

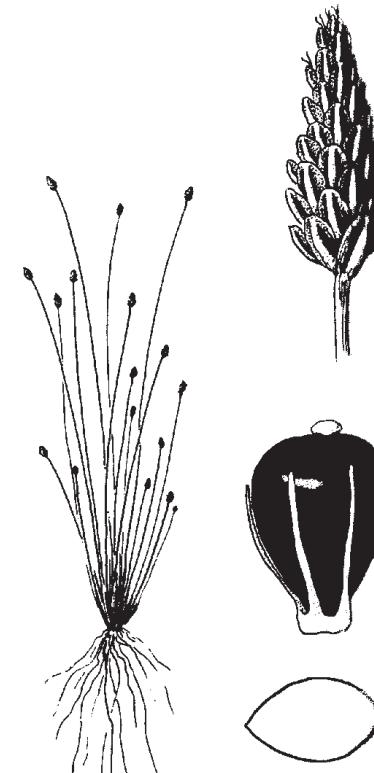
Phenology: Throughout its range this species fruits from June through September. In Washington this species was observed in August.

Range: This species has a worldwide distribution. This species is scattered in North America. In the west it is known from British Columbia south to Montana, California and Nevada. In Washington it is historically known from Chelan County.

Habitat: This species was found on the shore of Lake Chelan at approximately 1100 ft (335m) elevation. No elevations or associated species have been documented in Washington. According to the Flora of North America (2002) the species occurs from 0 to 5905 feet (0-1800 m) elevation throughout its range.

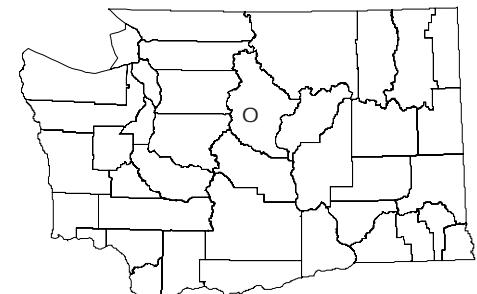
Eleocharis atropurpurea

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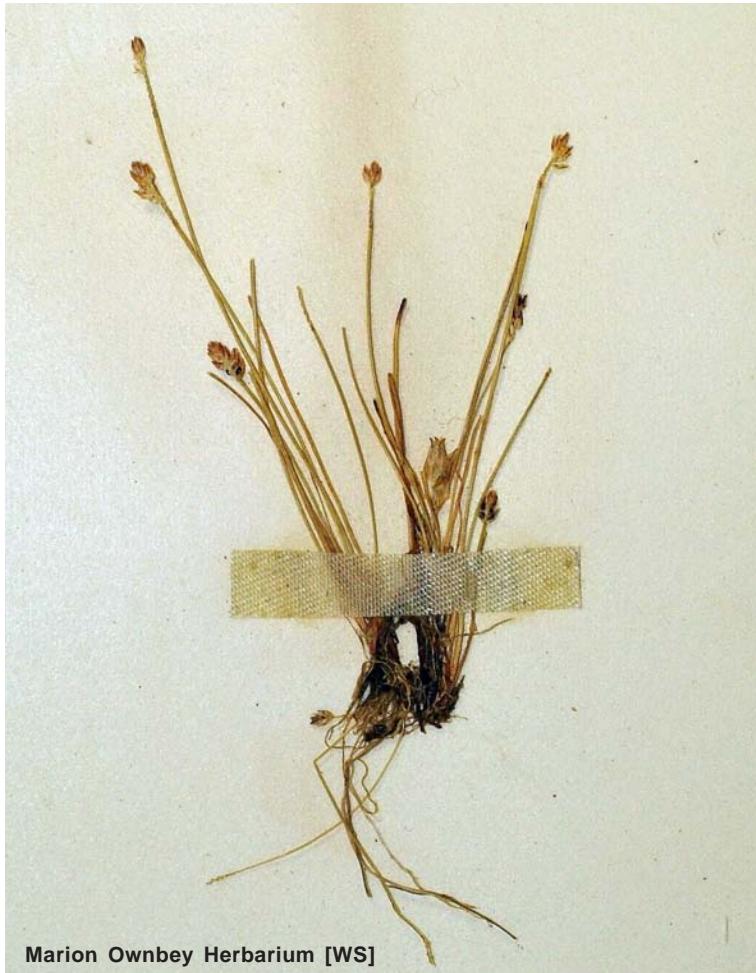
Known distribution
of *Eleocharis atropurpurea*
in Washington



- Current (1980+)
- Historic (older than 1980)

Eleocharis atropurpurea

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Marion Ownbey Herbarium [WS]

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Ecology: This is a facultative wetland species; it usually occurs in wetlands, but it is occasionally found in non-wetlands (Reed 1988).

State Status Comments: This species is known from one historical collection record in Chelan County from 1892, and extensive recent surveys of Lake Chelan found no populations.

Inventory Needs: When rare plant inventories are conducted in the east Cascades, *Eleocharis* species should be carefully identified. It is possible that there may be additional, as yet unidentified populations.

Threats and Management Concerns: This species appears to be extirpated in Washington.

References:

Flora of North America Editorial Committee, eds. 2002. *Flora of North America North of Mexico Volume 23 Magnoliophyta Commelinidae (in part) Cyperaceae*. Oxford University Press, New York. 608 pp.

Hitchcock, C.L., A. Cronquist, M. Ownbey, J.W. Thompson. 1969. *Vascular Plants of the Pacific Northwest Part 1: Vascular Cryptogams, Gymnosperms, and Monocotyledons*. University of Washington Press, Seattle, WA. 914 pp.

Reed, Porter B. Jr. 1988. *National List of Plant Species that Occur in Wetlands: Northwest (Region 9) for National Wetlands Inventory*. U.S. Fish and Wildlife Service.